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LOCKHEED MARTIN

Via FAX & USMAIL
RED0300/023 WBS# 48

March 15, 2000

Mr. Gerard J. Thibeault
Executive Officer
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Dear Mr. Thibeault:

Subject: March 2000, Quarterly Report for Order No. 94-37

The March 2000 quarterly report for Cleanup and Abatement Order 94-37 is attached. The report summarizes technical data generated, progress made, and problems encountered during the reporting period of December 1999, January, and February 2000. This report also includes the Containment Work Plan, Implementation of Alternative 5, Progress Report for February 2000.

If you have any comments or questions, please call me at (818) 847-0791.

Sincerely,



Thomas D. Blackman
Technical Project Manager

TDB:DLJ:mjg

Enclosure

cc: See attached distribution list

March 15, 2000
RED0300/023

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Mr. Gerard J. Thibeault

cc: Kalyanpur Baliga, Calif. Department of Health Services (San Bernardino)
Jon Satrom, USAF, Norton Air Force Base
Dodie Farmer, Victoria Farms Mutual Water Company
Wesley Danskin, United States Geological Survey
Gary Snyder, City of Loma Linda
Chris Bahnsen, San Bernardino Valley Water Conservation District
Doug Headrick, City of Redlands
John Holmes, City of Riverside
Ross Lewis, Gage Canal Company
Kevin Mayer, U.S. EPA, Region IX
Steve Mains, Western Municipal Water District
Morris Matson, Loma Linda University
Eugene McMeans, Riverside Highland Water Company
Scott Noll, Mountain View Power Company
Zahra Panahi, City of Riverside
Toby Roy, Department of Health Services (San Diego)
Dan Randall, City of Riverside
Bob Reiter, San Bernardino Valley Municipal Water District
Steve Williams, Department of Health Services (San Diego)
Alain Sharp, Earth Technology Corporation
Joseph Stejskal, City of San Bernardino
Dieter Wirtzfeld, City of Riverside

March 2000, QUARTERLY REPORT

REGARDING

California Regional Water Quality Control Board
Clean Up and Abatement Order No. 94-37

Pursuant to Order No. 94-37, item 10, Lockheed Martin Corporation hereby submits this quarterly report to the Regional Water Quality Control Board, Santa Ana Region.

Technical Data Generated

1. No water discharges occurred during December 1999, January 2000, or February 2000 under Monitoring and Reporting Program No. 98-67-031, NPDES No. CAG98001. Please note: Any discharges from the treatment systems installed by LMC are under the operational control of the City of Riverside (COR); and, as such, are governed by COR NPDES Permit.
2. Technical data associated with Water Supply Contingency Policy sampling was submitted to the CRWQCB under separate cover in January, 2000. These reports represented data collected in November and December 1999. The report for January 2000 will be submitted in March. The reports are entitled, "Production Well Sampling Report, Water Supply contingency Plan, Crafton Redlands Plume Project."

Progress Made

1. Progress regarding TCE Plume Containment "Alternative 5" implementation was submitted monthly to the Regional Board under separate cover. In summary, TCE treatment at two Gage Canal Company wells continued during this reporting period (Gage 26-1 & 27-1). Construction of the Tippecanoe Regional TCE treatment facility continued and was ultimately completed during this reporting period. Additional information on the progress made during this reporting period can be found in the attached "Monthly Report" for February 2000 and in the previously submitted reports for December 1999 and January 2000.
2. Drilling was completed this reporting period for installation of a new water supply well (Mountain View #4) for the City of Loma Linda. The new well is located at the southwest corner of the intersection of the Interstate 10 Freeway and Mountain View Avenue.

Problems Encountered

No significant problems were encountered during this reporting period.

**Containment Work Plan
Implementation of Alternative 5
Progress Report for February 2000
Reference – CAO No. 94-37
Crafton-Redlands TCE Plume**

Dear Mr. Thibeault:

This report covers progress made in February 2000 on the tasks required for implementation of Alternative 5 for TCE plume containment and treatment needs.

Temporary Treatment Systems

The temporary treatment systems located at Gage Wells 26-1 and 27-1 remained on-line for the entire month of February 2000 with the following exceptions:

The vessels involved in the bacteria growth control testing, described in last month's progress report, remained off-line. Lockheed Martin Corporation (LMC) concluded the testing of these vessels during mid-February and began preparation for moving the temporary treatment systems to the Sunnyside Regional Facility. The data collected from the testing proved inconclusive. LMC may propose to retest the pressure technique in the future.

Regional Treatment Systems

Listed below are the activities accomplished in February 2000 under Alternative 5 for the Regional TCE Treatment Facilities:

Tippecanoe Regional TCE Treatment Facility

Construction - The first load of carbon, enough to fill four of the twelve vessels, was delivered to the facility on February 10th. The four vessels (I, J, K and L) were filled, backwashed and sampled for bacteria. The water from vessels I, J, K and L was discharged to the City of Riverside's NPDES outfall while waiting for the bacteria sample results. The second four vessels volume of carbon was placed in vessels A, B, C and D on February, 17th. The carbon in these vessels was backwashed and sampled for bacteria with the flow diverted to the City of Riverside's NPDES outfall while waiting on analytical results for bacteria.

Vessels B and C were placed on line per an agreement with and the authority of City of Riverside Water Operations personnel at 1,000 gpm at 3:30 PM on February, 22nd. The remainder of the carbon beds were washed with a caustic solution to disinfect them. After the beds were disinfected they were again sampled for bacteria with the flow diverted to the City of Riverside's NPDES outfall while waiting on analytical results for bacteria.

It is anticipated that the remaining six carbon beds can be placed in service by the end of the first week of March. Filling, backwashing, sampling and placement of the remaining four vessels (for a total of 12 vessels at the facility) in service is anticipated during March.

Sunnyside Regional TCE Treatment Facility:

Permitting – The draft OM&M Manual for the Sunnyside Facility was reviewed by COR and comments incorporated into a final draft (distribution expected in March 2000).

Construction – The following notable construction activities were performed in February:

- The influent and effluent headers were installed on the pipe racks,
- The backwash supply and return headers were installed on the pipe racks,
- The backwash supply and discharge pumps and bag filter housings were set in place,
- Piping to and from the backwash supply and discharge pumps and bag filter housings was initiated,
- The electrical switchgear and switchgear building was constructed,
- Pulling and terminating wire between the Motor Control Center (MCC) and the plant instrument and electrical equipment was initiated,
- Installation of plant area light poles and fixtures was initiated,
- COR installed the valve tie-in to the Gage Canal pipeline.

It is anticipated that carbon vessels will be moved from the temporary well head treatment systems at wells 26-1 and 27-1 to the permanent location during the month of March. It is also anticipated that at least four of the twelve vessels to be re-located will be filled with carbon and will be producing water to the City of Riverside during the month of March.

Palm Meadows Regional TCE Treatment Facility:

Construction – The following notable construction activities were performed in February:

- The concrete pad for the future carbon vessels was completed,
- Concrete pads for the backwash supply and discharge pumps and filter housings was initiated,
- The influent, effluent, backwash supply and return header pipe racks were set in place,
- All underground piping and conduit was completed.

Installation of influent, effluent, backwash supply and return headers is planned for March. Additionally, installation of the electrical switchgear, light poles and fixtures, perimeter fencing and the MCC building is planned for March.